

REMARKS

Claims remaining in the present patent application are numbered 1-10, 12-16, 18-25, 28, and 29. Claims 11, 17, 26, and 27 have been canceled. Claims 1, 13, 19, and 25 have been amended herein. The rejections and comments of the Examiner set forth in the Office Action dated July 27, 2006 have been carefully considered by the Applicants. Applicants respectfully request the Examiner to consider and allow the remaining claims.

§112 Rejection

The present Office Action rejected Claims 1-29 under 35 U.S.C. §112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

More particularly, the present Office Action objected to the claim limitation "a permanent pixel border . . . comprising a plurality of pixels" in claims 1, 13, 19, and 25. Applicants have amended Claims 1, 13, and 25 to refer to a "border . . . comprising a fixed number of a plurality of pixels." As such, Applicants respectfully assert that the objections to the "permanent pixel border" have been

overcome. Applicants respectfully request further examination of Claims 1, 13, and 25.

Additionally, the present Office Action objected to claims 1-29 under 35 U.S.C. 112, first paragraph, because the specification (See page 22, line 22 to page 23, line 9) does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. Applicants respectfully assert that the specification does enable any person skilled in the art to make and use the invention commensurate in scope with Claims 1, 13, 19, and 25, as amended, in Claims 1, 13, 19, and 25.

Specifically, Applicants respectfully assert that the specification contains sufficient information regarding the subject matter of Claims 1-29 as to enable one skilled in the pertinent art to make and use the claimed invention without undue and unnecessary experimentation. In particular, Applicants respectfully point out that the specification recites that the border region 312 is not controlled by the frame buffer memory, but rather by a single control signal. (See Specification, page 19, lines 6-17) As such, in one embodiment, the row and column drivers used for the border "do not sequentially scan." Also, in another embodiment, row and column drivers used for the border can sequentially scan. That is, since the pixels

in the border are separately controlled by a single control signal, the pixels in the border can be sequentially scanned, or not sequentially scanned. As such, since the pixels in the border are separately controlled by a single control signal from the pixels in the passive matrix, Applicants respectfully assert that there are no inconsistencies and/or ambiguities in the specification, such that the border region of the passive LCD device is able to work.

Moreover, Figure 9 provides a specific example of how the pixels in the border region are separately controlled by the threshold voltage driver 430b, and the threshold voltage driver 430a that drives the single, control signal. Conversely, drivers 422 and 412 are used to drive the pixels in the passive matrix. As such, with the evidence provided above Applicants respectfully assert that no undue or unreasonable experimentation is needed by one skilled in the pertinent art to make and use the claimed invention.

In addition, the present Office Action objects to the term "pixel border . . . comprising a plurality of pixels." Applicants have herein amended Claims 1, 13, 19, and 25 to recite a "border . . . comprising a plurality of pixels." While Applicants respectfully assert that the term "pixel" in "pixel border" was used as an adjective to

describe a border comprising pixels, the amended Claims 1, 13, 19, and 25 clarifies the structure of the pixel.

Applicants respectfully assert that Claims 1-29 have overcome the 112, first paragraph, rejections. As such, Applicants respectfully request reconsideration of Claims 1-10, 12-16, 18-25, 28, and 29.

35 U.S.C. §103 Rejection

Previously, Claims 1-5, 8, 13-16, 19-23, 25, 26, 28, and 29 have been rejected under 35 U.S.C. 103(a) as being unpatentable over the Taniguchi reference (U.S. Patent No. 4,824,212) in view of Yokota et al. (U.S. Patent No. 6,181,313). Applicants have reviewed the above cited references and respectfully submit that the present invention as described in embodiments of independent Claims 1, 13, 19, and 25, is neither anticipated nor rendered obvious by the Taniguchi reference taken alone or in combination with the Yokota et al. reference.

Independent Claims 1, 13, 19, and 25

Applicants respectfully point out that the present invention as described in embodiments of independent Claims 1, 13, 19, and 25 describe a controllable pixel border for a negative mode passive matrix display device. In particular, the present invention as described in embodiments of

independent Claims 1, 13, 19, and 25 recites that a border, permanent or otherwise, surrounds the passive matrix is uniformly controlled as applied to each pixel by a common threshold signal.

Applicants respectfully agree that it is conceded that the Taniguchi reference does not teach the limitations of a plurality of pixels which is uniformly controlled between an on and an off state by a constant and common threshold signal, as is recited in independent Claims 1, 13, 19, and 25 of the present invention. Specifically, the common threshold signal is driven by constant and common threshold voltages driving the rows and columns in the border, thereby rendering the common threshold signal also constant. As such, the present invention discloses a separate border that surrounds the passive matrix that is uniformly controlled between an on and off state by a constant and common threshold signal, as recited in independent Claims 1, 13, 19, and 25 of the present invention.

Moreover, Applicants respectfully note that the prior art reference, Yokota et al. fails to overcome the shortcomings of the Taniguchi reference. In particular, in contrast to independent Claims 1, 13, 19, and 25 of the present invention, the Yokota et al. reference discloses a liquid display controller that selects rows of a liquid crystal panel, such that the non-display rows are driven on

an "alternating current of the non-selection level." (See col. 8, lines 19-25 of the Yokota et al. reference). Thus, the Yokota et al. reference describes an AC driving method providing alternating voltage levels that are not constant to drive the on and off state of pixels.

As such, neither the Taniguchi et al. reference, which does not address a common threshold signal, nor the Yokota et al. reference, which teaches that alternating voltages of an AC drive drives the on and off state of pixels, teaches the uniform control of the pixels in the pixel border with the application of a constant and common threshold signal, as is recited in independent Claims 1, 13, 19, and 25 of the present invention.

Thus, Applicants respectfully submit that the present invention as disclosed in independent Claims 1, 13, 19, and 25 is not anticipated or rendered obvious by the Taniguchi taken alone or in combination with the Yokota et al. reference, and is in a condition for allowance. In addition, Applicants respectfully submit that Claims 2-10 and 12 which depend from independent Claim 1 are also in a condition for allowance as being dependent on an allowable base claim. Also, Applicants respectfully submit that Claims 14-16 and 18 which depend from independent Claim 13 are also in a condition for allowance as being dependent on an allowable base claim. Further, Applicants respectfully

submit that Claims 20-24 which depend from independent Claim 19 are also in a condition for allowance as being dependent on an allowable base claim. Additionally, Applicants respectfully submit that Claims 28 and 29 which depend from independent Claim 25 are also in a condition for allowance as being dependent on an allowable base claim.

CONCLUSION

In light of the facts and arguments presented herein, Applicants respectfully request reconsideration of the rejected Claims.


Based on the arguments presented above, Applicants respectfully assert that Claims 1-10, 12-16, 18-25, 28, and 29 overcome the rejections of record. Therefore, Applicants respectfully solicit allowance of these Claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

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